III. REMARKS

Claim Status

Claim 1-27 are in the application. Claims 1-2, 4 and 6 have been amended. Claims 23 and 24 have been cancelled. Claims 25 and 26 are newly presented.

Election/Restriction

The examiner has required restriction under 35 U.S.C. 121 and 372 in that the application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, the examiner has required applicant to elect a single invention from among the following claim groups.

Group I - claims 1-3, 5, 7 and 9-11, drawn to a recombinant animal host cell system, comprising a recombinant G-protein coupled receptor and a recombinant CNGA2 channel.

Group II - claim 1, 3-5, 7 and 9-11, drawn to a recombinant animal host cell system, comprising a recombinant G-protein coupled receptor, a recombinant CNGA2 channel, and further comprising a cyclase harmonized to a G-protein coupled receptor.

Group III - claim 1, 3, 5-7 and 9-11, drawn to a recombinant animal host cell system, comprising a recombinant G-protein coupled receptor , a recombinant CNGA2 channel and further comprising a G-protein that is harmonized with the G protein-coupled receptor.

Group IV - claim 1, 3, 5, 7-11 drawn to a recombinant animal host cell system, comprising a recombinant G-protein coupled receptor, a recombinant CNGA2 channel and a potential

recombinant specific G-protein coupled receptor.

Group V - claims 12-16, drawn to a method of producing a recombinant animal host cell;

Group VI - claims 17-20 and 23; drawn to a method for identifying receptor-activating substances, by measuring changes in Ca^{t}' influx into the recombinant cellular system;

Group VII - Claims 21, drawn to a method for producing a pharmaceutical composition by measuring changes in Ca^{2+} influx into the recombinant cellular system and then formulating the pharmaceutical composition from the receptor-inducing substance; and

Group VIII - claims 22, drawn to a method for identifying G-protein coupled receptors, by measuring changes in Ca^{t}' influx into the recombinant cellular system.

For the purpose of providing a full response to this office action, applicant elects Group IV consisting of claims 1, 3, 5, 7-11 and newly submitted claims 26 and 27 drawn to a recombinant animal host cell system, comprising a recombinant G-protein coupled receptor, a recombinant CNGA2 channel and a potential recombinant specific G-protein coupled receptor.

In addition, the examiner states that the application contains claims directed to more than one species of the generic invention and that these species lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

1) type A guanylyl-cyclases,

2) type G guanylyl-cyclases,

3) pheromone receptors,

4) hormone receptors, and

5) olfactory receptors.

Applicant elects category 5, olfactory receptors, as the species to be examined.

Furthermore, the examiner states that the application contains claims directed to more than one species of the generic invention and which are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

1) HeLa-Cx43/CNGA2/01fr49,

2) HeLa-Cx43/CNGA2/G-alpha-olf,

3) HeLa-Cx43/CNGA2/G-alpha- olf/Olfr 49,

4) HeLa-Cx43/CNGA2/G-alpha-olf/O1fr41,

5) HeLa-Cx43/CNGA2/G-alpha- olf/Olfr 6,

6) HeLa-Cx43/CNGA2/G-alpha-olf/OR1A1.

Applicant elects category 2, HeLa-Cx43/CNGA2/G-alpha-olf, as the species to be examined.

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 14-1263.

Respectfully submitted,

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